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09/997,132	11/29/2001	Naoto Ohashi	SHC0159	5337

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EXAMINER

REICHLE, KARIN M

ART UNIT	PAPER NUMBER
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3761

19

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,132

Applicant(s)

OHASHI ET AL.

Examiner

Karin M. Reichle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-19-03 has been entered.

Specification

2. The 12-19-03 response does not comply with 37 CFR 1.121 because it does not show all the changes made to the specification and claims 1 and 4. The Examiner has made the necessary red ink changes to the substitute specification, both copies, and claims 1 and 4 to bring them into compliance. A further response, if any, must be in compliance with 37 CFR 1.121 in that all the changes to the application as of 12-19-03 must be set forth.

3. The substitute specification filed 12-19-03 has been entered.

Drawings

4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 6-12-03 have been approved. Replacement sheets reflecting such corrections have not yet been filed in the application. Correction to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the invention as now claimed in claims 1-11, see discussion infra, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Description

6. The disclosure is objected to because of the following informalities: The description of the distribution of fibers and particles within the core, i.e. locations and densities, is unclear. A clear description should be set forth. As best understood from the description, the entire core comprises a mixture of fibers and superabsorbent which mixture has various densities of superabsorbent and fibers at various locations. For example, Figure 2 shows a core having a mix of fibers and superabsorbent wherein the superabsorbent is positioned in a zone which zone is coextensive with the width of the core and includes the bottom of the grooves. The superabsorbent has a higher density within the vicinity of the grooves than elsewhere in the zone. Figure 4 additionally shows a thin layer 41 of fibers joined to each of the grooves which is higher in density than the density of remainder of the fibers. Page 6, lines 2-5 and page 9, lines 3-13 of the 12-19-03 specification disclose various particle density distribution patterns including an increasing gradient in the thickness direction or higher between grooves than outside the grooves. Note claim 1, the last section as filed 6-12-03 and compare to that filed 12-19-03.

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Applicant now claims in claim 1 a core having fibers and superabsorbent polymer particles wherein the fibers and particles are disposed substantially uniformly in a single zone within the core between the topsheet and backsheet which single zone is substantially coextensive with the width of the core and along the bottom of the at least one groove and the zone having a higher concentration of the superabsorbent polymers within a vicinity of the at least one groove.

Therefore Applicant appears to be claiming a core of fibers and particles with a single zone in which there is a uniform distribution of fibers and particles yet a higher concentration of particles in a portion thereof, i.e. a nonuniform distribution of fibers and particles. Not only is this inconsistent with itself, i.e. the particles and fibers are uniformly disposed in the zone but yet the particles are more highly concentrated in a portion thereof, but is also inconsistent with the remainder of the application as discussed above. The lack of clarity is further exacerbated by claims 4 (Note claim 4 as filed 6-12-03 and compare to claim 4 as filed 12-19-03), 6 and 9 which claim nonuniform densities of fibers or particles in various parts of the core which parts are not precluded from including the zone of claim 1 and the lack of the Figures showing such fiber/particle density combinations. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, as already discussed above, is indefinite because it claims a single zone in which the particles and fibers are disposed uniformly but yet a part of the zone has a higher

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concentration of particles, i.e. nonuniform disposition, i.e. are the particles uniformly distributed in the zone or not? This indefiniteness is further exacerbated by claims 4, 6 and 9 which claim varying concentrations of fibers or particles in various directions or locations of the core in combination with the limitations of claim 1. However those claims do not preclude the zone being part of such core locations or directions. Claim 4 is also indefinite because it is unclear whether "said water absorbent fibers" forming a thin layer and "said water absorbent fibers around a depth of the core" are the same or different, i.e. a clear positive structural antecedent basis for "said water absorbent fibers around a depth of the core" should be set forth.

Claim Language Interpretation

8. Due to the lack of clarity of the specification discussed above and in an effort to interpret the greatest number of claims consistently within themselves and each other, for the purposes of examination on the merits, the last two subsections of claim 1 will be interpreted as requiring a core containing fibers and particles with particles being disposed in a zone within the core which is coextensive with the width of the core and extends along the bottom of the at least one groove and wherein the particles in such zone are disposed so as to have a higher concentration within a vicinity of the at least one groove. It is noted that the zone will not be required to be a planar zone, i.e. can be curved (Note claim 1 did not require such), nor the only zone. Claim 4 will be interpreted as requiring fibers forming a layer at the bottom of each of the grooves which layer is in close contact with the topsheet and has a higher density than at least some fibers which do not form each of such layers. Claim 6 will be interpreted as requiring a particle distribution gradient in the thickness direction of at least a portion of the core. Claim 9

will be interpreted as requiring a particle distribution density greater between the grooves than outside the grooves. In at least a portion of the core.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld et al '016 in view of Pieniak et al. '442.

Claims 1-9: See Claim Interpretation Section supra.

In regard to claims 1-3, 5, and 7-8: see Figures 4-5 and 7-8, col. 1, lines 19-21 and 26-29, col. 2, lines 6-24, col. 2, line 57- col. 3, line 47, col. 5; lines 22-29 and 35-57, col. 6, lines 31-39, col. 6, line 58-col. 7, line 17, col. 7, line 55-col. 8, line 3, col. 8, lines 13-19, col. 9, lines 16-32, and 40-63, col. 10, lines 33-50 and col. 11, lines 49-53, e.g. in Figure 7, the topsheet is 72, the backsheet is 74, the core is 1, the groove is 50, the groove bottom is 56, the groove walls are 54, the fibers are 14, the particles are 16, the single zone is 8, 64, or 66 depending upon the Figure consulted, which zone can extend across an entire surface, i.e. length and width, of the core. It is noted that claim 1 requires a higher concentration of particles within "a vicinity" of the at least one groove. This terminology has not been given a specific definition by Applicant so the usual or dictionary definition applies. The American Heritage Dictionary defines "vicinity" as "The state of being near in space or relationship, proximity." In other words the term is relative. Thus, as, for example, shown in the Figures, a higher concentration of particles is shown around the grooves 50, see Figures cited supra. Thus the Rosenfeld et al device is deemed to teach a

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higher concentration in "a vicinity" of the groove as claimed. It should be noted that since Rosenfeld et al also teaches that the zone including the bottom of the groove can be formed with a homogenous mixture of fibers and particles or a gradient, if an area of such zone is densified to form the channels 50, the area below such channels will have a higher density or concentration of particles and fibers per unit dimension than the uncompressed areas of such zones. It is also noted with regard to the claims 1-3, that the claims do not require direct joining between the portions of the groove and the diffusive sheet and the diffusive sheet and the topsheet. Applicant did not provide a specific definition of the term "joining" so the usual or dictionary definition applies, i.e. could be direct or indirect attachment. Therefore, the Rosenfeld et al device includes all the claimed structure, as best understood, except for teaching an absorbent and diffusive sheet covering the core and thereby its joining to the polymer particles and topsheet along the grooves although it does teach the core can include a layer of tissue. However, see Pieniak et al, col. 10, lines 34-44, i.e. it is well known to wrap core in tissue to prevent dusting of particles and the tissue can thereby be joined to grooves of core, i.e. particles, and top sheet to enhance fit and aesthetics. To employ the tissue to wrap the core and join it to the grooves of the core as taught by Pieniak et al on the Rosenfeld device would be obvious to one of ordinary skill in the art in view of the recognition that it is well known to wrap the core with tissue to prevent dusting of particles and joining to the grooves of the core and topsheet would enhance the fit and aesthetics and the desire of such features in any absorbent article. It is also noted that such would necessarily improve the integrity of the core and col. 1, lines 19-21 and 26-29 of Rosenfeld. Figure 7 of Rosenfeld also shows a single nonplanar zone of particles coextensive with the width of the core.

Claim 4: see col. 2, lines 57-63, col. 3, lines 32-37 and Figures cited supra. It should be noted that since Rosenfeld et al also teaches that the zone including the bottom of the groove can be formed with a homogenous mixture of fibers and particles or a gradient, if an area of such zone is densified to form the channels 50, the area below such channels will have a higher density or concentration of particles and fibers per unit dimension than the uncompressed areas of such zones, i.e. layer of fibers exists at the bottom of each groove which has a higher density than at least some fibers which do not form each such layer, and will be in close contact with the topsheet.

Claim 6: See Figures cited supra and col. 3, lines 12-30.

Claim 9: see Figures cited supra and col. 7, line 55-col. 8, line 6, col. 8, lines 13-19.

11. Claims 1-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld '884 in view of Pieniak.

Claims 1-8 and 10-11: see Claim Language Interpretation section supra.

In regard to claims 1-3, 5 and 7-8: see Figures 2 and 4-5, page 1, lines 17-18 and 21-23, page 2, lines 49-51 and paragraphs 12-14, 17, 21, 24, 26, 30 and 33, e.g. in Figure 4, the topsheet is 33, the backsheet is 34, the core is 1, the groove is 12, the groove bottom is 14, the groove walls are 13, the fibers are 7, the particles are 8, the single zone is 22 and 6, which zone can extend across an entire surface, i.e. length and width, of the core. It is noted that claim 1 requires a higher concentration of particles within "a vicinity" of the at least one groove. This terminology has not been given a specific definition by Applicant so the usual or dictionary definition applies. The American Heritage Dictionary defines "vicinity" as "The state of being near in space or relationship, proximity." In other words the term is relative. Thus, as, for

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example, shown in the Figures, a higher concentration of particles is shown around the grooves 12, see Figures cited supra. Thus the Rosenfeld et al device is deemed to teach a higher concentration in "a vicinity" of the groove as claimed. It should be noted that since Rosenfeld et al also teaches that the zone including the bottom of the groove can be formed with a homogenous mixture of fibers and particles or a gradient, if an area of such zone is densified to form the channels 12, the area below such channels will have a higher density or concentration of particles and fibers per unit dimension than the uncompressed areas of such zones. Therefore, the Rosenfeld et al device includes all the claimed structure, as best understood, except for teaching an absorbent and diffusive sheet covering the core although it does teach the core can include a layer of nonwoven. However, see Pieniak et al, col. 10, lines 34-44, i.e. it is well known to wrap core in tissue, i.e. a nonwoven, to prevent dusting of particles and tissue can thereby be joined to grooves of core, i.e. particles, and top sheet to enhance fit and aesthetics. To employ the tissue to wrap the core and join it to the grooves of the core as taught by Pieniak et al on the Rosenfeld device would be obvious to one of ordinary skill in the art in view of the recognition that it is well known to wrap the core with tissue to prevent dusting of particles and joining to the grooves of the core and topsheet would enhance the fit and aesthetics and the desire of such features in any absorbent article. It is also noted that such would necessarily improve the integrity of the core and col. 1, lines 19-21 and 26-29 of Rosenfeld. It is noted that Figure 4 of Rosenfeld also shows a single nonplanar zone of particles coextensive with the width of the core.

Claim 4: see paragraphs 13 and 30 and Figures cited supra. It should be noted that since Rosenfeld et al also teaches that the zone including the bottom of the groove can be formed with

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a homogenous mixture of fibers and particles or a gradient, if an area of such zone is densified to form the channels 50, the area below such channels will have a higher density or concentration of particles and fibers per unit dimension than the uncompressed areas of such zones, i.e. layer of fibers exists at the bottom of each groove which has a higher density than at least some fibers which do not form each such layer, and will be in close contact with the topsheet.

Claim 6: See Figures cited supra and paragraph 13.

Claims 10-11: page 5, lines 1-5 of Rosenfeld, and thereby Goldman '646 at col. 23, lines 13-18, col. 26, lines 53-62, col. 27, lines 15-30 and 39-41, the paragraph bridging cols. 27-28 and 29-30, col. 29, lines 24-27, claims 28, 32-34 and 42-45.

Response to Arguments

12. Applicant's remarks on pages 7-8 with regard to the informal matters have been noted but are either deemed moot in that the issue discussed has not been reraised or is deemed not persuasive for the reasons set forth supra. It is noted that the Examiner's remarks cited on those pages are not set forth accurately. See the claim language of the last subsection of claim 1 as filed 6-12-03 and the Final rejection in which the Examiner stated a zone of particles, i.e. continuously disposed particles, was shown coextensive in the width direction of the core. Applicant's remarks on pages 9-11 with regard to the prior art have been considered but are deemed not persuasive in light of the claimed invention, as best understood, i.e. see the claim interpretation section, the specification objection, the 35 USC 112 rejection of the claims and the prior art rejection supra.


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Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karin M. Reichle whose telephone number is (703) 308-2617. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (703) 308-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Karin M. Reichle
Primary Examiner
Art Unit 3761

KMR
March 31, 2004